

## BACKGROUND

### How did this happen?

- *On August 5, 2015, the Environmental Protection Agency was conducting an investigation of the Gold King Mine near Silverton to assess the on-going water releases from the mine, treat mine water, and assess the feasibility of further mine remediation.*
- *While excavating above the old adit, water began leaking from the top of the mine tunnel, spilling about three million gallons of water stored behind the collapsed material into Cement Creek, a tributary of the Animas River.*

### What was the total volume discharged on August 5?

- *The spill volume associated with the release on August 5, was three million gallons. Current discharge rates from the mine are averaging around 600 gallons per minute. For context, there are multiple mines along the upper Animas, and historically there has been considerable discharge at each mine site. The Red and Bonita Mine, just below Gold King Mine, is currently discharging about 300 gallons per minute.*

### Where did the plume go?

- *There is no longer a visible leading edge of the Gold King Mine plume. The Environmental Protection Agency estimates that the water associated with the release reached Lake Powell sometime on Wednesday afternoon August 12. Lake Powell is a large body of water, and we expect no significant impacts to the lake, the Colorado River or any water bodies downstream.*

## RESPONSE

### What work is happening at the site right now?

- *As water exits the mine, the water flows into a system of four treatment ponds. The treatment ponds provide retention time to allow the addition of lime to neutralize the acidity of the water. Flocculation compounds are added during the process to settle the metals to the bottom of the retention ponds. One additional retention pond was added to the treatment system in addition to the original four ponds to allow crews to manage the sludges that have settled out to date.*

- *This additional pond will allow the treatment system to maintain efficiency as the crews are managing the existing ponds. Longer-term treatment needs and options are being evaluated.*

**What is being done to control the situation?**

- *The EPA's primary objectives include working with federal, state, tribal and local authorities to make sure that people continue to have access to safe drinking water, ensure appropriate precautions are in place for recreational use and contact with river water, evaluate impacts to aquatic life and fish populations, and stop the flow of contaminated water into the watershed at the Gold King Mine site. Environmental Protection Agency teams are deployed throughout the Animas River corridor collecting data. They have collected water quality samples from seven locations in the river near intakes for Aztec, Farmington, Lower Valley Water Users Association, Morning Star Water Supply System, and the North Star Water User Association. Each of these locations will continue to be monitored as the release makes its way past these areas. EPA Mobile Command Post arrived in Farmington on August 9. Two scientists are available to assist with water quality monitoring. Collection, transport and lab analysis of metals in water is complex and time consuming. Workers at the lab and data experts are working continuously to evaluate and summarize the data.*
- *The Environmental Protection Agency is working closely with first responders and local and state officials to ensure the safety of citizens to water contaminated by the spill. The agency activated its Emergency Operations Center to ensure coordination among its regions, laboratories and national program offices in Washington DC. EPA is closely coordinating with the officials in Colorado, New Mexico, Utah, Southern Ute tribe and Navajo Nation. EPA is taking the lead on efforts to address the mine discharge and the discharge is now controlled. EPA has also deployed federal On-Scene Coordinators and other technicians in Colorado, New Mexico and the Navajo Nation to assist with response activities in these jurisdictions. EPA is sharing information as quickly as possible with the community as experts work to analyze any effects the spill may have on drinking water and public health.*

**Is the Environmental Protection Agency currently conducting sediment sampling? If so, when does the agency expect to make those results available? (EPA)**

- *The Environmental Protection Agency conducted sediment testing in Colorado, New Mexico, Navajo Nation, and Southern Ute Nation. New results are posted on the website on an ongoing basis. ([www2.EPA.gov/goldkingmine](http://www2.EPA.gov/goldkingmine))*

**What took so long for EPA to release water quality data?**

- *This is a time-consuming process. The Environmental Protection Agency (EPA) is looking to develop and evaluate a full picture of the release event and water quality conditions before, during and following the movement of the plume downstream. The EPA sampled water at several locations in the Animas and San Juan Rivers for a suite of metals and contaminants. The lab work and quality assurance process for generating these data is extensive and designed to make sure we can have confidence in our results. This effort generated thousands of data points, which need to be analyzed by our scientists, placed in the context of other data collected, assessed for trends and compared to risk screening levels that EPA uses to make sure public health is protected.*

#### **What does the data say?**

- *The Environmental Protection Agency is collecting and assessing water quality from the Animas and San Juan Rivers daily. The La Plata County Sheriff lifted the recreation use ban on the Animas River on Friday, Aug. 14. The water quality data we have analyzed thus far continues to indicate little to no health risks associated with the plume and a return to pre-event baseline conditions in the Animas River in Colorado. In the San Juan River, data indicates the plume dissipated as it traveled downstream, and samples show a smaller rise in acidity and metals levels in the river compared to those in the Animas River. Further downstream, data does not suggest impacts as the plume dissipated and no leading edge was visible.*

#### **What contaminants have been found and at what concentrations? (EPA)**

- *Data is posted at [www2.EPA.gov/goldkingmine](http://www2.EPA.gov/goldkingmine) as they become available.*

### **HUMAN HEALTH**

#### **What are the health risks?**

- *Based on the data we have seen, the Environmental Protection Agency and the Agency for Toxic Substances and Disease Registry do not anticipate adverse health effects from exposure to the metals detected in the river water samples from skin contact or incidental (unintentional) ingestion. We continue to evaluate water quality at locations impacted by the release.*
- *Although the pH levels in the Animas River between Cement Creek and Durango have returned to baseline levels, washing with soap and water after contact with untreated river water is always sound public health practice. This will minimize exposure to any*

*metals and pathogens that may be present. We are still reviewing data on pH levels in the San Juan River and will release those as soon as they have been validated.*

### **How do I know if my drinking water is safe? ?**

- *The Colorado Department of Public Health and Environment (CDPHE) advises, "There are several types of "water" being considered and it is important to distinguish between them. Drinking water in the public water system comes from various sources and is treated before being delivered to homes and businesses."*
- *CDPHE goes on to say, "Depending on the source of water for a public water system, drinking water may be unaffected or only partly affected by the mine release. The Durango water system uses water from the Animas River and the Florida River. The state health department has notified Durango officials that the water is safe for drinking after treatment in the drinking water treatment facility."*

### **What happens if there is incidental ingestion of river water?**

- *The Colorado Department of Public Health and the Environment has stated, "If you swallow a bit of river water, you are in no more danger today than you would have been prior to the spill. But remember it is never advisable to consume untreated water. The data show levels of contamination are below what would be a concern for human health during typical recreational exposure."*

### **Can you eat the fish?**

- *Fish were collected from the Animas and San Juan Rivers. Tissue samples were taken from these fish and the samples were provided to the Colorado Department of Public Health and Environment (CDPHE) laboratory for testing. We hope to have the results from the CDPHE lab tests soon.*

### **What if there is contact with sediment on shore and in water?**

- *Colorado Department of Public Health and Environment stated, "Sediment is just one indicator of a healthy river. There is some level of contamination in most Colorado rivers because of past mining activities and the geology of the state," the agency added. "The Colorado Department of Public Health and Environment does not anticipate adverse health effects from exposure to contaminants detected in the water and sediment during typical recreational activities."*

- *The San Juan Basin Health Department concurs with the state health department findings, and advises that there are no adverse health effects from exposure to the water and sediment during normal recreational use (incidental or limited exposure). The San Juan Basin Health Department advises the public to avoid areas with orange sediment or discolored standing water. Further, anyone coming in contact with any orange sediment or discolored standing water should wash with soap and water after exposure.*

## **FISH AND WILDLIFE**

### **What about wildlife and fish?**

- *The assessment of impacts to wildlife and fish populations in both the Animas and San Juan Rivers is ongoing but promising. The Environmental Protection Agency is working with the State of Colorado Division of Parks and Wildlife (CPW), the New Mexico Department of Game Fish, the Navajo Nation and the U.S. Fish and Wildlife Service to investigate reports of impacts to wildlife.*
- *There were no fish kills along the Animas River during the plume event. Biologists walked and paddled the river looking for dead fish. There was also no evidence of scavenging by birds or other mammals*
- *No effects were seen on terrestrial animals – ducks, mammals, etc. Ducks have been seen back on the river since Monday, Aug. 10.*
- *The Animas River has been affected by acid-mine run-off for decades and that has been detrimental to fish populations for many years. CPW has seen a noticeable decline in the number of trout in the river for the last 10 years. There are very few fish found from Silverton to Baker's Bridge. The bridge is located about 10 miles north of Durango.*
- *While this information is encouraging in terms of short-term impacts to fish, we will be evaluating long-term impacts associated with exposure to the plume and the impacts of deposited sediments over time. EPA will be working with the States of Colorado, New Mexico and the Navajo Nation to evaluate these and other ecological impacts as we move forward.*

## **ACCOUNTABILITY**

### **What is EPA doing to make sure this doesn't happen again?**

- *The EPA has worked successfully to address environmental concerns at hundreds of abandoned mine sites across the West. The EPA will thoroughly investigate this incident, and it is committed to applying all lessons learned to its work as it moves forward.*
- *While the EPA continues to investigate the root causes of the release of mining waste at the Gold King Mine, all Regions will immediately cease any field investigation work at mines, including tailings facilities. The Department of the Interior will lead an independent assessment of the factors that led to the Gold King Mine Incident. It is anticipated that the DOI will provide the assessment report to EPA and the public within 60 days. Based on the outcome from that assessment, EPA will determine what actions may be necessary to avoid similar incidents at other sites.*
- *While EPA stops work on existing field investigations and assessments at these mining sites, EPA also is instructing Regions to identify existing sites with similarities to the Gold King Mine site, to identify any immediate threats and to consider appropriate response actions.*

#### **Who, specifically, is responsible for the release?**

- *An EPA Region 8 team was working at the site with a response contractor and the State of Colorado's Division of Reclamation, Mining and Safety.*

#### **FUTURE**

##### **Describe the damage that was done to fish, tourism, agriculture, etc.**

- *The Colorado Department of Parks and Wildlife stated that, "There were no fish or wildlife killed or injured that have been reported. Tourism and agriculture effects will be assessed as time goes on."*

#### **Are you considering making this a Superfund site? (EPA)**

- *The Gold King Mine site has never been proposed to be listed on the National Priority List*

*(NPL). At this time we haven't received any requests from the governor to propose listing this site on the NPL, which we look for as part of the agency's policy and practice for considering Superfund designations.*

**What are the long-term concerns?**

- *Our longer-term concern is the potential effect of metals deposited in sediments and their potential release during storm events. These sediments may pose some risk, especially to aquatic life and fish. Because we have been working to assess impacts to water quality in the Animas River for several years, we have good information and data on background conditions in the river. The Environmental Protection Agency will use this information to assess long-term needs and evaluate our progress in restoring the waters impacted by the Gold King Mine release.*